

AMENDMENTS TO THE DRAWINGS

Attached are five sheets of replacement drawing sheets including FIGS. 2, 3a, 3b, 4a-4c, 8 and 9 which are to replace the four original drawing sheets including FIGS. 2, 3, 4a-4c, 8 and 9. FIGS. 2, 4a-4c and 9 are amended to include cross-hatching for the spool valve 21, original FIG. 3 is relabeled as FIG. 3a and is amended to depict the spool valve in cross-section, and FIG. 3b is added to illustrate the valve spool in plan view.

Replacement Drawing Sheets

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the following remarks.

Appreciation is expressed to Examiner Schneider and Examiner Keasel for their time and attention during the interview conducted at the U.S. Patent and Trademark Office on January 9, 2007. The remarks below discuss the substance of the interview.

One point discussed during the interview involved the drawing objections set forth on pages two and three of the Official Action. As explained by the undersigned, the left side of original FIG. 3 illustrates the spool valve 21 in partial cross-section, while the right side of the spool valve 21 shown in original FIG. 3 depicts the spool valve 21 in plan view or normal view. Examiner Schneider indicated that he understood this point. However, for purposes of making it easier to understand the drawing figures at a glance, Examiner Schneider asked that the drawings be amended to include one drawing figure illustrating the spool valve in cross-section, and another drawing figure illustrating the spool valve in plan (normal) view. Thus, submitted with the Amendment are replacement drawing sheets including FIG. 3a and FIG. 3b. FIG. 3a illustrates the spool valve in cross-section, while Fig. 3b illustrates the spool valve in plan view or normal view. In addition, the spool valve shown in FIG. 3a is illustrated with cross-hatching.

Also submitted with this Amendment are replacement drawing sheets setting forth amended versions of FIGS. 2, 4a-4c and 9. These drawings have all been amended to include appropriate cross hatching as suggested by the Examiner.

With particular regard to the reference numerals used to identify the recesses, referring to FIG. 2, the original specification describes the recess 21e provided at the lower edge portion (21h) of one land (21a), the recess 21f provided at the upper edge portion (21g) of the other land (21b), the recess 21i provided at the lower edge portion (21h) of the one land (21a) and the recess 21j provided at the upper edge portion (21g) of the other land (21b). This identification of the recesses by the noted reference numerals is maintained in amended FIGS. 3a and Figs. 4a-4c.

With respect to Fig. 3b, the description at the bottom of page 5 of the original application describes that the right side of the spool valve 21 shown in original FIG. 3 is a plan view or normal view of the spool valve as viewed from the left side in the direction of the arrow PL in original FIG. 3. Thus, the right side of the spool valve in original Fig. 3 is intended to illustrate the same recesses 21e, 21f shown on the left side of original FIG. 3. This is the reason why original FIG. 3 identified the recesses on the left and right sides of the spool valve with the same reference numerals. For this same reason, and to maintain consistency with the written description, the recesses shown in new FIG. 3b are designated 21e and 21f.

Submitted with this Amendment is a substitute specification in which various amendments have been made to refer to new FIG. 3b and to reflect the reference numerals used in the amended drawing figures. The minor informality pointed out in paragraph "5" of the Official Action has also been addressed in the substitute specification. In addition, a number of other minor typographical, idiomatic and grammatical errors have been addressed. No new matter is introduced by way of the substitute specification. Also attached is a marked-up copy of the original specification showing changes embodied in the substitute specification.

In light of the foregoing, withdrawal of the drawing objections and the objection to the disclosure is respectfully requested.

The claims currently at issue in this application are Claims 1, 2, 4-8 and newly added Claims 9-12. Claims 1, 6, 7 and 8 are the only independent claims.

As explained during the interview, the claims at issue in this application are directed to a hydraulic pressure control device comprising, *inter alia*, a spool valve slidably disposed in the valve body and comprising at least one land portion. As set forth in independent Claims 1 and 7, at least one recess is provided at an edge of the land portion of the spool valve. Claim 1 goes on to recite that the cross-sectional opening area that opens to the inlet port between the recess and the inner surface of the valve body continuously changes in the spool valve sliding direction. On the other hand, Claim 7 recites that the cross-sectional opening area between the recess and the inner surface of the valve body continuously decreases in the spool valve sliding direction from the edge portion of the land portion.

Independent Claims 6 and 8 recite at least one recess provided at a wall of the inner surface of the valve body facing the outer surface of the spool valve. Claim 6 recites that the cross-sectional opening area that opens to the inlet port between the at least one recess and the outer surface of the spool valve is continuously decreased in the sliding direction of the spool valve from the opening portion, while Claim 8 recites that the cross-sectional opening area between the recess and the outer surface of the spool valve is continuously decreased in the spool valve sliding direction.

As further discussed during the interview, one difference between the recess provided at the wall of the inner surface of the valve body or the edge of the land

portion of the spool valve involves the configuration of the recess. In addition to the bottom of the recess being curved so that the depth of the recess increases toward the edge of the land or in the longitudinal direction of the valve body, the recess has a width at the outer surface of the valve spool or at the inner surface of the valve body that increases along a curved profile. The increasing curved width of the recess is illustrated in original FIG. 3 and new FIG. 3b, and described in the specification.

The undersigned further explained that in the case of the solenoid valve disclosed in U.S. Application Publication No. 2002/0134443 to *Sudani et al.*, the recess 323 does not possess the configuration now recited in independent Claim 1. That is, the recess 323 disclosed in *Sudani et al.* as applied to independent Claim 1 is not configured to possess a width at the outer surface of the spool valve that increases along a curved profile toward the edge of the land in the longitudinal direction of the spool valve.

U.S. Patent No. 3,556,155 to *McWilliams et al.*, which is relied upon for its disclosure of a particularly configured recess, discloses a variable flow modulated valve provided with a pair of overlapping grooves 52, 54, 56, 58. As explained during the interview, these grooves 52, 54, 56, 58 do not possess the recess configuration recited in independent Claim 1, namely a recess having a width at the outer surface of the spool valve that increases along a curved profile toward the edge of the land in the longitudinal direction of the spool valve. Thus, a combination of the disclosures in *Sudani et al.* and *McWilliams et al.* would not have suggested a hydraulic pressure control device having the combination and arrangement of features recited in Claim 1.

With respect to independent Claim 6, the Official Action relies upon the disclosure in *Sudani et al.* in view of the disclosure in U.S. Patent No. 2,747,612 to *Lee*. As the Official Action notes, *Sudani et al.* lacks disclosure of the claimed recess. *Lee* does not make up for the deficiencies in *Sudani et al.* *Lee* discloses a recess which the Official Action identifies as reference numeral 70. However, this portion of the valve disclosed in *Lee* does not possess the configuration of the recess recited in independent Claim 6. It is thus respectfully submitted that independent Claim 6 is patentably distinguishable over a combination of the disclosures in *Sudani et al.* and *Lee*.

With respect to the disclosure in U.S. Patent No. 5,819,192 to *Wakahara*, this reference lacks disclosure of a recess having the features recited in independent Claims 1 and 7. In addition, neither *McWilliams et al.* nor U.S. Application Publication No. 2002/007857 to *Lou* makes up for such deficiency. As pointed out above, the grooves 52, 54, 56, 58 in *McWilliams et al.* do not possess the claimed configuration of the recess set forth in independent Claims 1 and 7. And the disclosure in *Lou* is similarly lacking. It is thus respectfully submitted that independent Claims 1 and 7 are patentably distinguishable over a combination of the disclosures in *Wakahara et al.*, *Lou* and *McWilliams et al.*

Finally, with respect to the rejection of independent Claims 6 and 8 set forth on pages 9-11 of the Official Action, the deficiencies in *Wakahara et al.*, *Lou* and *Lee* have been pointed out above. As none of these documents discloses a recess having the configuration recited in independent Claims 6 and 8, a combination of those references would not have directed one to provide a hydraulic pressure control device having the claimed combination of features, including the claimed recess.

Early and favorable action with respect to this application is respectfully requested.

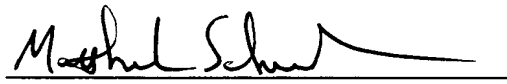
Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

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